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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,714	04/17/2006	David M. Szmyd	US030472US	6310
65913	7550	03/28/2008		
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131				
EXAMINER KUO, WENSING W				
ART UNIT 2826		PAPER NUMBER		
NOTIFICATION DATE 03/28/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

### Office Action Summary

**Application No.**

10/576,714

**Applicant(s)**

SZMYD, DAVID M.

**Examiner**

W. Wendy Kuo

**Art Unit**

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,6-11,14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,6-11,14 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

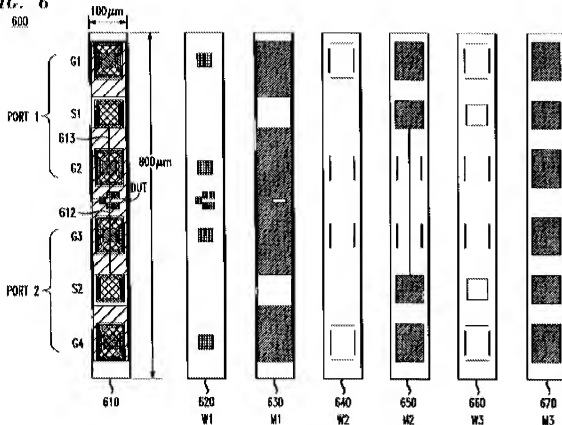
**DETAILED ACTION**

1. Claims 1, 3, 6-11, 14, and 16 are pending.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. **Claims 1, 3, 6-7, 10-11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ivanov et al. (US 6,194,739) (hereinafter Ivanov).**
4. With respect to claim 1, Ivanov (e.g. Figure 6) teaches a ground-signal-ground (GSG) test structure for production measurement of RF device performance in integrated circuits, comprising one pair of signal pads (S1, S2) (**S1, S2**) and two pairs of ground pads (G1a, G2a; G1b, G2b) (**G1, G3; G2, G4**), wherein all said six pads (G1a, G2a, S1, S2, G1b, G2b) are arranged linearly **with first pads (G1a, S1, G1b) connected to first RF probes and second pads (G2a, S2, G2b) connected to second RF probes** (column 9, lines 41-43).

**FIG. 6**



Ivanov fails to teach that the *first pads (G1a, S1, G1b) are arranged alternately with the second pads (G2a, S2, G2b)*. However, rearranging the position of the first and second pads will not modify the operation of the device and, thus, is not patentably distinguishable from the prior art. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). Furthermore, "the particular placement of a contact in a conductivity measuring device was held to be an obvious matter of design choice." *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

It would have been obvious to one of ordinary skill in the art at the time of the invention to rearrange the placement of the ground and signal pads as an obvious

matter of design choice and for the benefit of providing accurate GS or GSG RF-device monitors (column 2, lines 29-30; note column 10, lines 33-38).

5. With respect to claim 3, Ivanov teaches that the first RF probes are connected to a first port, and all the second RF probes are connected to a second port (column 9, lines 28-29 and lines 41-43).

6. With respect to claim 6, Ivanov (e.g. Figure 6) teaches that the device under test (DUT) is placed between said pair of signal pads (S1, S2).

7. With respect to claim 7, Ivanov teaches that the pair of signal pads are placed on an upper metal layer **M2** (column 8, lines 61-63) and said two pairs of ground pads are placed on a lower metal layer **M1** (column 7, lines 65-67).

8. With respect to claim 10, Ivanov (e.g. Figure 6) teaches an arrangement of GSG testing pads comprising one pair of signal pads (S1, S2) (**S1, S2**) and two pairs of ground pads (G1a, G1b; G2a, G2b) (**G1, G2; G3, G4**), wherein all of said pads (G1a, G2a, S1, S2, G1b, G2b) are arranged linearly **with first pads (G1a, S1, G1b) connected to first RF probes and second pads (G2a, S2, G2b) connected to second RF probes** (column 9, lines 41-43).

Ivanov fails to teach that the **first pads (G1a, S1, G1b) are arranged alternately with the second pads (G2a, S2, G2b)**. However, rearranging the position of the first and second pads will not modify the operation of the device and, thus, is not patentably distinguishable from the prior art. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). Furthermore, "the particular placement of a contact in a conductivity measuring

device was held to be an obvious matter of design choice.” *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

It would have been obvious to one of ordinary skill in the art at the time of the invention to rearrange the placement of the ground and signal pads as an obvious matter of design choice and for the benefit of providing accurate GS or GSG RF-device monitors (column 2, lines 29-30; note column 10, lines 33-38).

9. With respect to claim 11, Ivanov teaches that all of said pads are placed in a saw line (street) of a wafer (column 9, lines 58-61).

10. With respect to claim 14, Ivanov teaches that all said first RF probes are connected to a first port (column 9, lines 28-29), and all said second RF probes are connected to a second port (column 9, lines 41-43).

**11. Claims 8-9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ivanov in view of Takamori (US 6,008,542) (hereinafter Takamori).**

12. With respect to claims 8 and 16, Ivanov teaches all of the limitations of claim 7 and 10, respectively, above.

Ivanov fails to teach that each of the two pairs of ground pads has a common single pad opening. Takamori (e.g. Figure 4) discloses two pairs of pads (**31b, 31c**) having a common single pad opening **33a** for the benefit of allowing the probes to be arranged in a staggered manner (column 2, lines 39-40).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to provide the device of Ivanov with the common single pad opening of Takamori for the benefit of allowing the probes to be arranged in a staggered manner.

\*Note that although Takamori's pads are placed adjacent to each other in the common opening and Ivanov's ground pads are not adjacent to each other, it has already been established above that one of ordinary skill in the art can rearrange the pads such that the pairs of ground pads are adjacent to each other as an obvious matter of design choice.

13. With respect to claim 9, Ivanov in view of Takamori fails to teach that the pad pitch is 100  $\mu\text{m}$  and the probe pitch is 200  $\mu\text{m}$ . However, differences in pad and probe pitch will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such distances are critical. Such pitches as claimed are not patentably distinct from the prior art device where the claimed dimensions would not perform differently from the prior art device. *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984).

It is noted that the specification contains no disclosure of either the critical nature of the claimed pitch dimensions or any unexpected results arising therefrom. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Since the applicant has not established the criticality of the pad and probe pitch, and it is known in the art to alter pitch dimensions to optimize the functionality of the

device, it would have been obvious to one of ordinary skill in the art at the time of the invention to use these values in the device of Ivanov in view of Takamori.

***Response to Arguments***

14. Applicant's submission of a replacement drawing sheet filed on 23 January 2008 is acknowledged, and objections with respect to the drawings are withdrawn.

15. Regarding Applicant's response to the rejection of claim 9 under 35 U.S.C. §112, first paragraph, the arguments presented are persuasive, and the §112, first paragraph rejection of claim 9 is withdrawn.

16. Applicant's arguments with respect to the §102/§103 rejections filed 23 January 2008 have been fully considered but they are not persuasive.

Regarding Applicant's response that the "proposed modification of Ivanov is not a simple matter of design choice but would necessitate reconfiguration of the ports in the device of Ivanov in a manner contrary to the disclosed teachings," it is respectfully noted that Ivanov explicitly discloses that various changes in the arrangements of the parts may be made (column 10, lines 33-35). Furthermore, with respect to Applicant's assertion that "reconfiguring the ports would change the impedance characteristics, thereby undermining a purpose of the configuration taught by Ivanov" because Ivanov teaches as an example a waveguide strip to connect the signal pads, it is respectfully noted that Ivanov discloses that an alternative embodiment may be made without the use of the characteristic impedance waveguides (column 10, lines 16-19). Therefore, it is held that rearranging the position of the first and second pads is an obvious matter of



design choice that will not modify the operation of the device and, thus, is not patentably distinguishable from the prior art.

### ***Conclusion***

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. Wendy Kuo whose telephone number is (571)270-1859. The examiner can normally be reached Monday through Friday 7:00 AM to 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue A. Purvis can be reached at (571) 272-1236. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2826

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Leonardo Andújar/  
Primary Examiner, Art Unit 2826

W. Wendy Kuo  
Examiner  
Art Unit 2826

WWK